ABSTRACT OF THE DISCLOSURE

[104] Aspects of the invention may comprise receiving an incoming TCP packet at a TEEC and processing at least a portion of the incoming packet once by the TEEC without having to do any reassembly and/or retransmission by the TEEC. At least a portion of the incoming TCP packet may be buffered in at least one internal elastic buffer of the TEEC. The internal elastic buffer may comprise a receive internal elastic buffer and/or a transmit internal elastic buffer. Accordingly, at least a portion of the incoming TCP packet may be buffered in the receive internal elastic buffer. At least a portion of the processed incoming packet may be placed in a portion of a host memory for processing by a host processor or CPU. Furthermore, at least a portion of the processed incoming TCP packet may be DMA transferred to a portion of the host memory.